



2016 CAP lecture
(Canadian Association of Physicists)

Real Life on Fake Mars: A Student Guide to Becoming an Everyday Astronaut

By

***Dr. Ross Lockwood,
University of Alberta***

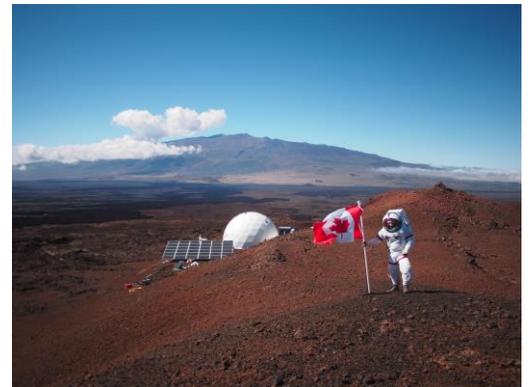
Tuesday, March 1, 2016

12:30 pm to 1:30 pm in Hennings 200

Light refreshments (juice/pop/donuts/coffee) will be served!

Abstract:

Mars seems tantalizingly close these days. With major missions being planned to the Red Planet over the next couple of decades, public interest in spaceflight is growing daily. While Mars offers the promise of a second home for humanity, the technical challenges of getting there and back again are on a scale humanity hasn't seen since humans first set foot on the Moon. To solve these challenges analog missions are being conducted around the world, replicating different environments and testing various aspects that will be critical to future missions.



With a modern version of the space race emerging alongside the rise of commercial spaceflight, the demand for astronauts is increasing. However, there is no clear career path to becoming an astronaut, but some career choices seem more effective than others. How then, can you prepare yourself for a possible future as an astronaut? Ross Lockwood shares his experiences as a lab-rat for NASA studies and his ongoing commitment to civilian training programs for astronaut hopefuls.

Speaker:



Dr. Ross Lockwood is a graduate from the University of Alberta with a Ph.D. in Condensed Matter Physics. His doctoral research focused on silicon quantum dots: nanoscale light emitters with potential applications in quantum computing and high-performance chemical sensing. He is now working on human performance analytics and 3D printing technologies with space exploration as his central motivation.

For the last two years, Ross has been exploring the path to becoming an astronaut. In 2014 he participated as a research subject in the Hawaii Space Exploration Analog and Simulation (HI-SEAS), a 120-day Mars simulation where he played the role of the systems and communications engineer. In 2015, he trained as an Astronaut-Candidate with the Polar Suborbital Science in the Upper Mesosphere (PoSSUM) research group. He continues to volunteer and train for a future astronaut application with the Canadian Space Agency.